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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/593,095	09/15/2006	Thomas Werner	1004501-000859	7834

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EXAMINER	
SHIFERAW, ELENI A	

ART UNIT	PAPER NUMBER
2436	

NOTIFICATION DATE	DELIVERY MODE
01/21/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary	Application No.	Applicant(s)	
	10/593,095	WERNER ET AL.	
	Examiner	Art Unit	
	ELENI A. SHIFERAW	2436	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 October 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-12 are pending claims 11-12 are newly added.

Information Disclosure Statement

2. The information disclosure statements (IDS) submitted on 12/15/2006 and 09/15/2006 have been considered. The submission is in compliance with the provisions of 37 CFR 1.97. Form PTO-1449 is signed and previously attached hereto.

Oath/Declaration

3. The oath filed on 09/15/2006 complies with all the requirements set forth in MPEP 602 and therefore is accepted.

Drawings

4. The drawings filed on 09/15/2006 are accepted.

Response to Amendment

5. The objections to claim 1 is withdrawn in view of applicant's amendment.

6. The objection to claim 3 is withdrawn in view of applicant's amendment.

7. The objection to claim 8 regarding "a specific entity" is still maintained because no amendment has been made. The amendment to claim 8 wherein "it" is accepted and the objection is herein withdrawn.

8. The applicant's argument regarding 101 rejections to claims 1-7 and 8-9 is not persuasive at all, remark pages 8-12. However the examiner withdraws the 101 rejections to all claims because of the recited "adapter" in the claims.

Specification

9. The specification filed on 09/15/2006 is accepted.

Response to Arguments

10. Applicant's arguments and amendments are fully considered and arguments are moot in view of new ground of rejection and examiner's argument herein below:

Regarding argument the personal data of Shorter is far different than data that is related to physical assets, remark page 13, argument is not persuasive because the data of Shorter may also disclose only one single value that has to be carefully selected (see figs. 1-2).

Regarding argument the references failure to disclose "a multitude of IT systems (e.g., SCADA, CMMS, GIS) that refer *to a single physical asset or component of a utility* as recited in the claims, argument is not persuasive because what applicant claims is (NEW DEPENDENT claims 11-12) "wherein the IT systems include **any** combination of a supervisory control and data acquisition system, a computerized maintenance management system and a geographic information system" which is taught by the new reference Vetter et al. 2002/0083102 A1 see below or **(see par. 10, 13, 31, claim 1 and figs. 2-4 of Vetter et al.)** and one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Claim Objections

11. Claim 8 is objected to: in line 19 "a specific entity" should be changed to "said specific entity" to be consistent with line 15 or appropriate correction is required.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. Claims 1, and 3-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tindal et al. US Pub. 20020069274 in view of Stallings "SNMP and SNMPv2: The Infrastructure for Network Management" and Shorter et al. US PG Pubs. 20030004822 A1.

Regarding claim 1, Tindal et al. discloses a method that validates consistency of attributes of entities **(Network device configuration records e.g. of edge router, core router etc)** modeling a physical asset of a utility, said entities are stored in data sets of a multitude of different IT systems of the utility **(the network devices) (par. 0042 and 0044; ...The configuration reader 195 can also retrieve the intended configuration of the target device from the configuration storage 187 and pass that intended configuration to the configuration comparator 190. The configuration comparator 190 can then compare the**

actual configuration and the intended configuration and present the differences to the administrator 110…),

wherein said entities are assigned to entity types **(network device types see par. 0044),** holding a list of available attributes **(every device's configuration record contains a set and/or subset of attributes/CIM data portion see par. 0042 and 0044)**,

wherein a consistency service comprises

an input buffer in which an entity to be validated for consistency of its attributes can be placed **(par. 0042 and fig. 4; configuration comparator input)**, output means in which the result of the consistency validation can be stored **(par. 0042 and fig. 4; configuration comparator output outputs comparator result and stores to present the result to the administrator)** and

communication means to communicate with the different IT systems (**network devices for communicating with the configuration reader module see par. 0042**), and

wherein a storage device holds references to the entity in the data sets of the various IT systems such that the entity in a specific IT system can be addressed **(the configuration reader module retrieves the network devices' configuration records i.e. the references to network device's configuration records are stored and that network device configuration's records can be addressed based on the stored references see par. 0042)**, said method comprising the following steps:

loading the entity to be validated for consistency of attributes of the entity into the buffer of the consistency service, wherein the physical asset carries the attributes of the entity **(par. 42 and figs. 1-6)**, reading the values of the attributes of the entity through the adapter of an IT

system, comparing, in the consistency service, the values of the attributes to values of reference attributes stored in the consistency service, and storing consistency validating information in the output means, said consistency validating information depending on the results of the comparison of the values of the attributes to the values of the reference attributes **(the configuration record for the network device is retrieved from the configuration storage and/or the configuration record stored in the memory of the network device is retrieved by the configuration reader module and passed to the configuration comparator module where it is compared with the intended configuration record for this device, the result of the comparison or consistency validation information are stored and presented to the administrator par. 0042).**

Tindal et al. fails to explicitly teach whereas an adapter for each of the IT systems allows communication between the consistency service and the IT systems.

However Stallings discloses a simple network management protocol (SNMP) in a network management of IP-based networks, the SNMP retrieves the network devices' configuration data using GET-requests by sending get messages (*signal*) **(see fig. 1),** returning an error message "noSuchName" if the requested object does not exist (*verifying the existence of the specific configuration data*) **(see table 2 or Stallings).**

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the teachings of Stallings within the system of Tindal et al. because they are analogous in network monitoring and management. One would have been motivated to incorporate the teachings of Stallings to retrieve the network devices' configuration data.

The combination of Tindal and Stallings does not explicitly disclose wherein the reference storage a specific entity in specific IT system can be addressed through the adapter of the specific IT system and based on such a reference stored in the reference storage.

However Shorter et al. teaches a reference storage a specific entity in specific IT system can be addressed through the adapter of the specific IT system **(see fig. 2 adapters 110 and IT systems in different retail channels 220… data control point 250)** and based on such a reference stored in the reference storage **(see par. 27-29, 13-17 and figs. 1-2).**

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the teachings of Shorter et al. within the combination system because they are analogous in IT system. One would have been motivated to incorporate the teachings to using the information to access to access the devices and to improve performance (see par. 12-17).

Claim 7 recites a computer program product of claim 1 and it has been rejected based on the same reason as claim 1 above.

Regarding claim 8 Tindal et al. teaches a system that validates a consistency of attributes of entities modeling a physical asset of a utility, which entities are stored in data sets of a multitude of different IT systems **(*the network devices*) (par. 0042 and 0044; …The configuration reader 195 can also retrieve the intended configuration of the target device from the configuration storage 187 and pass that intended configuration to the configuration comparator 190. The configuration comparator 190 can then compare the actual configuration and the intended configuration and present the differences to the**

administrator 110…) of the utility and which entities are assigned to entity types holding a list of available attributes, said system comprising:

a consistency service (fig. 7) having:

an input buffer in which an entity to be validated for consistency of attributes of the entity can be placed, wherein the physical asset carries the attributes of the entity **(par. 0042 and fig. --6; configuration comparator input)**,

output means for storing a result of the consistency validation can be stored **(par. 0042 and fig. 4; configuration comparator output outputs comparator result and stores to present the result to the administrator)** and

communication means for communicating with the different IT systems (**network devices adapters for communicating with the configuration reader module see par. 0042**), and wherein a reference storage device holds references to the entities in the data sets of the various IT systems such that a specific entity in a specific IT system can be addressed based on such a reference stored in the reference storage **(the configuration record for the network device is retrieved from the configuration storage and/or the configuration record stored in the memory of the network device is retrieved by the configuration reader module and passed to the configuration comparator module where it is compared with the intended configuration record for this device, the result of the comparison or consistency validation information are stored and presented to the administrator par. 0042).**

Tindal et al. fails to explicitly teach whereas an adapter for each of the IT systems allows communication between the consistency service and the IT systems.

However Stallings discloses a simple network management protocol (SNMP) in a network management of IP-based networks, the SNMP retrieves the network devices' configuration data using GET-requests by sending get messages **(*signal*) (see fig. 1),** returning an error message "noSuchName" if the requested object does not exist **(*verifying the existence of the specific configuration data*) (see table 2 or Stallings).**

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the teachings of Stallings within the system of Tindal et al. because they are analogous in network monitoring and management. One would have been motivated to incorporate the teachings of Stallings to retrieve the network devices' configuration data.

The combination of Tindal and Stallings does not explicitly disclose wherein the reference storage a specific entity in specific IT system can be addressed through the adapter of the specific IT system and based on such a reference stored in the reference storage.

However Shorter et al. teaches a reference storage a specific entity in specific IT system can be addressed through the adapter of the specific IT system **(see fig. 2 adapters 110 and IT systems in different retail channels 220… data control point 250)** and based on such a reference stored in the reference storage **(see par. 27-29, 13-17 and figs. 1-2).**

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the teachings of Shorter et al. within the combination system because they are analogous in IT system. One would have been motivated to incorporate the teachings to using the information to access to access the devices and to improve performance (see par. 12-17).

Regarding claim 3 the combination further teaches wherein the adapter for each of the IT systems allows communication between the consistency service and the IT systems such that a signal sent by the consistency service to verify the existence of a specified data set of an IT system can be sent back to the consistency service if that specific data set exists, the method further comprising the following step:

the consistency service sending a signal to verify the existence of a specific data set of an IT system to the IT system holding the entity to be validated for consistency of attributes of the entities prior to reading the values from the attributes of the entity through the adapter of the IT system **(Tindal et al. par. 0042, 0033)**, and aborting the consistency validating of the entity if the signal is not being sent back to the consistency service **(Tindal et al. par 0033-0036)**.

Regarding claim 4, the combination teaches the method further comprising the following step: logging failure of consistency validation if the signal is not being sent back to the consistency service by adding entity, which was to be validated for consistency, and the IT system, which was not replying to the signal, to a log file **(Tindal et al. par. 0011 and 0016; central repository …. all network events… network manager determining and fixing based on the posted events**).

Regarding claim 5, the combination teaches the method further comprising the following step: the consistency service checking communication to the IT system holding the data set to be verified prior to sending signal to verify the existence of the specific data set of that IT system

(Tindal et al. par. 0027-0038 and 0037-0044).

Regarding claim 6, the combination teaches the method, further comprising the following step: a multitude of entities to be validated for consistency being loaded into the buffer of the consistency service **(Tindal et al. fig. 4)**, the consistency service successively processing the entities to be validated for consistency, sending out signals and storing consistency validating information in the output means **(Tindal et al. par. 0027-0038, and 0037-0044)**.

Regarding claim 9, the combination teaches the consistency validation system wherein the reference storage further holds entity types **(network device types see par. 0044)**, to which each entity can be assigned, said entity types defining a list of available attributes of the entities **(every device's configuration record contains a set and/or subset of attributes/CIM data portion see par. 0042 and 0044)**.

14. Claims 2 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tindal et al. US Pub. 20020069274 and Stallings "SNMP and SNMPv2: The Infrastructure for Network Management" and Shorter et al. US PG Pubs. 20030004822 A1 and further in view of Menezes A J et al. "Hash functions and data integrity" Handbook of applied cryptography, CRC press series on discrete mathematics and its applications, BOCA RATON, FL, CRC press, US, 1997, pages 321-383, XP002275660 ISBN: 0-8493-8523-7"

Regarding claim 2 the combination fail to disclose wherein a hash code is computed from the values of the attributes read from the adapter and compared to a reference hash code computed from the values of the reference attributes, and the values of the attributes are compared to the values of the reference attributes by comparing the computed hash codes.

However Menezes teaches **using hash function for verifying the integrity of data see page 322 lines 4-15**.

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the teachings of Menezes within the combination system to authenticate the integrity of the data.

Regarding claim 10 the combination fail to teach consistency validating system, wherein the consistency service further holds a reference hash code computed from the values of the attributes and to be compared to a hash code computed from the values of the attributes of the specific entity. However Menezes teaches **using hash function for verifying the integrity of data see page 322 lines 4-15**. The rational for combining are the same as claim 2 above.

15. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tindal et al. US Pub. 20020069274 in view of Stallings "SNMP and SNMPv2: The Infrastructure for Network Management" and Shorter et al. US PG Pubs. 20030004822 A1 and further in view of Vetter et al. US PG Pubs. 2002/0083102 A1.

Regarding claims 11 and 12, the combination fails to disclose wherein the different IT systems include any combination of a supervisory control and data acquisition system, a computerized maintenance management system, and a geographic information system. However Vetter et al. discloses wherein the different IT systems include any combination of a supervisory control and data acquisition system, a computerized maintenance management system, and a geographic information system **(see par. 10, 13, 31, claim 1 and figs. 2-4)**. Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made too modify the teachings to retrieve and synchronize information stored in various data sources of the GIS, SCADA and/or CMMS.

Conclusion

16. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELENI A. SHIFERAW whose telephone number is (571)272-3867. The examiner can normally be reached on Mon-Fri 6:00am-2:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nasser R. Moazzami can be reached on (571) 272-4195. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eleni A Shiferaw/
Primary Examiner, Art Unit 2436